IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant	:	Josef BERWANGER et al.	
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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AMENDMENT UNDER 37 C.F.R. § 1.111

Sir:

In response to the Office action of July 21, 2009 the above identified application is amended as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 8 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12. **(Canceled)**

13. **(Currently amended)** A cycle-based communication system for transmitting useful data between users of the system, including a data bus and the users connected to it, in which the data transmission is effected within cyclically repeating timeframes with at least two timeslots each, and each timeslot is intended for transmitting one message, one message contains at least some of the useful data, and each message is assigned an identifier, characterized in that the identifier is stored in each message as part of the message; that each message additionally includes data about the cycle; that the timeslots have a fixed length; and that at least one of the timeslots of one timeframe can be used, in various cycles, for offset transmission of different messages that are not intended for transmission in every cycle, wherein the data about the cycle has either additional cycle data integrated with the identifier of each message, or a separate cycle counter integrated in each message, ~~and~~ wherein each message is additionally assigned time data that pertain to a timeslot and that can be learned from the identifier**, and wherein messages transmitted over the communication system whose identifier matches a predetermined identifier but which are of no interest to the**

user according to the data about the cycle contained in the message, are prevented from

being loaded into the user.

14. **(Previously presented)** The communication system of claim 13, wherein the data about

the cycle pertain to current cycle.

15. **(Previously presented)** The communication system of claim 14, wherein the data

pertaining to the current cycle include an ordinal number of the cycle.

Claim 16. **(Canceled)**

Claim 17. **(Canceled)**

Claim 18. **(Canceled)**

19. **(Currently amended)** The communication system of claim ~~16~~ **13**, wherein the time data

include data about the chronological position of a timeslot within a timeframe.

20. **(Currently amended)** A method for transmitting useful data in a cycle-based

communication system between users of the system via a data bus, to which the users are

connected, in which the useful data are transmitted within cyclically repeating timeframes

each with at least two timeslots, and in each timeslot one message is transmitted, at least

some of the useful data are stored in memory in a message, and each message is assigned an

identifier, wherein the messages are transmitted in timeslots of fixed length; that the identifier

is stored in memory in the message as part of the message; that in each message, data about

the cycle are stored in memory; that in at least one of the timeslots of a timeframe, different

messages are transmitted offset from one another in various cycles, and in the at least one

timeslot, those messages that are not intended for transmission in every cycle are transmitted

offset from one another, wherein either additional cycle data is integrated with the identifier,

or a separate cycle counter integrated in the message is used, and wherein each message is

additionally assigned time data that pertain to a timeslot and that can be learned from the

identifier, **and wherein messages transmitted over the communication system whose**

identifier matches a predetermined identifier but which are of no interest to the user

according to the data about the cycle contained in the message, are prevented from

being loaded into the user.

21. **(Previously presented)** The transmission method of claim 20, wherein the users of the

communication system are each allocated at least one predeterminable timeslot of the

timeframes for data transmission.

22. **(Previously presented)** The transmission method of claim 20, wherein data pertaining

to the current cycle are additionally stored in memory in each message.

23. **(Previously presented)** The transmission method of claim 21, wherein data pertaining to the current cycle are additionally stored in memory in each message.

24. **(Currently amended)** The transmission method of claim 22, wherein the ~~cycle~~ data **pertaining to the current cycle** are stored in memory in a message as part of the identifier of that message.

25. **(Currently amended)** The transmission method of claim 22, wherein the messages transmitted over the data bus in the timeslots of the timeframes are observed by the users of the communication system; that **either** the identifiers ~~and~~ **or** the ~~cycle~~ data **pertaining to the current cycle** of the messages are compared with predeterminable values **respectively,** stored in memories of the observing users, for the identifier and the ~~cycle~~ data **pertaining to the current cycle,** and at least the useful data of a transmitted message are received by the user only if the identifier and the ~~cycle~~ data **pertaining to the current cycle** of the message match the predeterminable values, stored in the memory of the user, for the identifier and the ~~cycle~~ data **pertaining to the current cycle**.

26. **(Currently amended)** The transmission method of claim 23, wherein the messages transmitted over the data bus in the timeslots of the timeframes are observed by the users of the communication system; that **either** the identifiers ~~and~~ **or** the ~~cycle~~ data **pertaining to the current cycle** of the messages are compared with predeterminable values **respectively,** stored in memories of the observing users, for the identifier and the ~~cycle~~ data **pertaining to the**

current cycle, and at least the useful data of a transmitted message are received by the user

only if the identifier and the ~~cycle~~ data **pertaining to the current cycle** of the message match

the predeterminable values, stored in the memory of the user, for the identifier and the ~~cycle~~

data **pertaining to the current cycle**.

27. **(Currently amended)** The transmission method of claim 22, wherein the data traffic on

the data bus of the communication system is observed; ~~the~~ current cycle data are monitored

by the users; and a message is sent by a user in a predeterminable timeslot only if the current

cycle data match a predeterminable value, stored in a memory of the user, for the ~~cycle~~ data

pertaining to the current cycle.

28. **(Currently amended)** The transmission method of claim 23, wherein the data traffic on

the data bus of the communication system is observed; ~~the~~ current cycle data are monitored

by the users; and a message is sent by a user in a predeterminable timeslot only if the current

cycle data match a predeterminable value, stored in a memory of the user, for the ~~cycle~~ data

pertaining to the current cycle.

29. **(Currently amended)** The transmission method of claim 24, wherein the data traffic on

the data bus of the communication system is observed; ~~the~~ current cycle data are monitored

by the users; and a message is sent by a user in a predeterminable timeslot only if the current

cycle data match a predeterminable value, stored in a memory of the user, for the ~~cycle~~ data

pertaining to the current cycle.

30. **(Currently amended)** The transmission method of claim 25, wherein the data traffic on the data bus of the communication system is observed; ~~the~~ current cycle data are monitored by the users; and a message is sent by a user in a predeterminable timeslot only if the current cycle data match a predeterminable value, stored in a memory of the user, for the ~~cycle~~ data **pertaining to the current cycle**.

31. **(Currently amended)** The transmission method of claim 26, wherein the data traffic on the data bus of the communication system is observed; ~~the~~ current cycle data are monitored by the users; and a message is sent by a user in a predeterminable timeslot only if the current cycle data match a predeterminable value, stored in a memory of the user, for the ~~cycle~~ data **pertaining to the current cycle**.

32. **(New)** The transmission method of claim 20, wherein either a MUX bit is used to store data pertaining to the current cycle in the message or a separate cycle counter is used to store data pertaining to the current cycle in the message.

33. **(New)** The communication system of claim 13, wherein either a MUX bit is used to store data pertaining to the current cycle in the message or a separate cycle counter is used to store data pertaining to the current cycle in the message.